USDA United States Department of Agriculture

Pest Alert

Periodical Cicadas

Periodical cicadas are grouped into broods based on year of adult emergence. Most broods appear every 17 years. Each brood appears during a different year, so adults emerge somewhere almost every year. Due to staggered development, in some areas more than one brood may emerge during a 17-year period. Periodical cicadas are sometimes called 17-year locusts; however, "locust" is a misnomer because true locusts are grasshoppers, not cicadas. A few broods appear every 13 years.

Brood V

This Pest Alert focuses on Brood V, found mainly in Ohio and West Virginia. It also emerges in the southwest corner of Pennsylvania, the westernmost county of Maryland, and the northwest corner of Virginia.

Brood V periodical cicadas last emerged in spring 2016 over large portions of Ohio and West Virginia. This brood is the largest that occurs in either State. It was previously seen in 1999 and will be seen again in 2033. Brood V consists of three separate species of periodical cicadas: *Magicicada septendecim* (L.), *M. cassini* (Fisher), and *M. septendecula* (Alexander and Moore).

Life Cycle

Adult periodical cicadas usually have red eyes (occasionally white, or rarely blue or marbled white and orange). Their dark bodies measure just over 1½ inches long. They are not capable of biting or stinging. Adults live for about 4 to 6 weeks during which their sole purpose is to mate and lay eggs. Males are responsible for the familiar droning, which is how they call for mates. Cicada "songs" are heard from early morning to late evening as long as adults are present. Periodical cicadas should not be confused with annual (dog day) cicadas, which are larger, usually green with black eyes, and appear every summer in much smaller numbers.

The branch damage, or "flagging," associated with periodical cicadas results from females laying eggs in small twigs. A female cuts two parallel slits in a twig where she lays 24 to 28 eggs. Sometimes a continuous slit 2 to 3 inches long is formed as she slowly makes her way up a twig. The slits cause breakage, or flagging, of the tips of the branches.

The eggs hatch in 6 weeks, and young cicadas, or nymphs, fall to the ground where they burrow into the soil and spend the next 17 years feeding on small roots, without causing significant damage. At the end of this time, usually in May and early June, nymphs crawl out of the soil and climb up tree trunks or other vertical objects where they shed their skins and emerge as adults.

An adult periodical cicada rests on a utility pole during the Brood V emergence in West Virginia, 2016. (Forest Service photo by Sandra Clark)

A female lays 24 to 28 eggs in slits she makes in a twig. (Forest Service photo by Rick Turcotte)

The female may make a continuous slit up to 3 inches long while laying eggs. (Forest Service photo by Karen Felton)

After feeding underground for 17 years, nymphs crawl out and up, shed their skins, and emerge as adults. (Forest Service photo by Heather Smith)

Forest Service

Northeastern Area
State and Private Forestry

NA–PR–02–99

Revised May 2017

Host Plants

Many deciduous trees (such as oak, apple, hickory, and dogwood) are preferred hosts; however, other woody plants (such as grapevines, junipers, and alders) have also been damaged during emergence of periodical cicadas.

Flagging damage in hemlock and American hornbeam. (Courtesy photo by William Oldland)

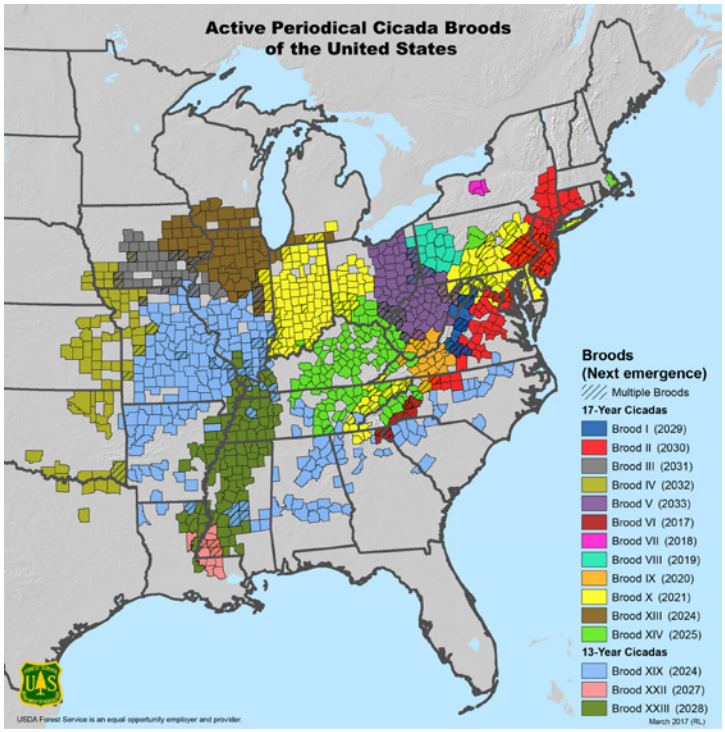
Flagging damage in oaks. (Forest Service photo by Heather Smith)

Managing and Reducing Damage

Knowing where and when periodical cicadas will emerge helps in reducing and managing the damage they cause. The Forest Service has mapped the county location and year of emergence for 15 broods of active periodical cicadas in the United States.

To manage damage, here are some suggestions:

- Prune ornamentals and trees lightly or not at all the winter before periodical cicadas emerge. Damaged twigs may be pruned the following winter.
- In heavily infested areas delay new plantings of woody ornamentals and trees until fall or spring after emergence to avoid damage.
- Protect small shade and ornamental trees by covering them with cheesecloth, finely woven netting, or tobacco shade cloth. This covering physically prevents females from laying eggs in the twigs. Trees too large to cover may be sprayed with a contact insecticide.
- Contact your local extension agent or entomologist for insecticide recommendations and follow all label directions carefully. Chemical control is difficult during peak egg laying, due to the large number of cicadas present and relatively slow action of the insecticide.



(Forest Service map by A. M. Liebhold, M. J. Bohne, R. L. Lilja)

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Pesticide Precaution

Pesticides used improperly can injure humans, animals, and plants. Follow the directions and heed all precautions on the labels. Consult your local extension agent to be sure the intended pesticide use is appropriate for your situation.

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